



Lou Kellenberger

"The Eagle's Eye"

Edited by Lori Nicholson & Robin Will

Grand Opening of Nature's Classrooms!
Sept. 24,-25, 2011



Free food and fun for the entire family: Sat & Sun! Sept. 24 and 25.

See page 8 for times. Photo by Craig Kittendorf

FALL 2011

St. Marks National Wildlife Refuge

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St. Marks NWR
(850) 925-6121

<http://www.fws.gov/saintmarks>

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Bill Thompson III (shown above) is the editor of Bird Watcher's Digest, America's longest-running magazine for birders. He's also a keen birder, the author of many books, a dad, a field trip leader, an ecotourism consultant, a guitar player, the host of the "This Birding Life" podcast, a regular speaker/performer on the birding festival circuit, a gentleman farmer, and a fun guy to be around. His North American life list is somewhere between 673 and 675. His favorite bird is the red-headed woodpecker. His "spark bird" (the bird that got him interested in birding) was a snowy owl. He has observed birds in 25 countries and 44 states. But his favorite place to watch birds is on the 80-acre farm he shares with his wife, artist/writer Julie Zickefoose. In his spare time he's the leader of the country-rock band The Rain Crows. Some kind person once

called Bill "The Pied Piper of Birding" and he has been trying to live up to that moniker ever since.

St. Marks NWR is proud to announce that Bill will speak on Saturday and Sunday, Sept. 24 and 25, 2011 as part of the celebration of the new Refuge Environmental Education Center. He is an engaging, enthusiastic supporter of getting families outdoors and will tell audiences how birds act as the doorway to nature.

Come learn about the refuge Photo Club, Volunteering, Citizen Science projects, St. Marks Refuge Association, learning centers on refuge wildlife and more, from 11 am – 5 pm on Saturday and 10 am – 4 pm on Sunday. Please check the refuge website for the complete schedule – www.fws.gov/saintmarks.

The new Environmental Education Center, called "Nature's Classroom," has been funded using nearly \$1 million from the American Recovery and Reinvestment Act, popularly known as stimulus funds. "This new building will make it possible to expand our environmental education outreach programs, both to the thousands of school children who visit the refuge annually and to the community in general," said refuge staff member Chris Weber.

The 3200 sq. foot building

contains two separate classrooms for environmental education programs, community training, professional development and special events. One classroom (The Monarch Room) will be primarily for kids, with cubbies, work stations, a wet and dry lab and bright colors. The other room (Barred Owl Room) has a large projection screen, projector, conference tables and chairs for professional presentations and trainings.

We truly feel that this building belongs to the people. "This a community building where we can provide adult lecture series, fun programs and activities." says refuge manager Terry Peacock.

One of the new programs to be offered will be the "First Sunday at the Refuge," which will highlight refuge history, management and wildlife. Please see the Calendar of Events in this newsletter for more information. The first program is Sunday, Oct. 2, 2011 at 2 pm on "Flames on the Refuge – how and why we burn!"

**Join us on
Saturday
Sept. 24 or
Sunday
Sept. 25!**

Notes from Nature's Classroom

Lori Nicholson

I would like to thank all of the environmental education volunteers and staff that helped with educational programs and outreach this year. You deserve a round of applause, we exceeded last years number (11,311) with a whopping 12,706 and we still have until the end of September to count numbers. Great job. I

imagine our numbers will increase even more with Nature's Classroom opening this month. The months of Oct. and Nov. are already booked to maximum capacity.

We have a busy fall planned with lots of environmental education, Families in Nature (4th Saturday of

the month), Tots on Trails (second Thursday of the month) and teacher workshops, we have PLT workshops planned along with the Bird Sleuth Workshop to be held Oct. 9 from 9 am until noon. Space is limited so email me to reserve your spot now.

lori_nicholson@fws.gov

Wild Wisdom

Gail Fishman

"Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher 'standard of living' is worth its cost in things natural, wild and free. For us of the minority, the opportunity to see geese is more important than television, and the chance to find a pasque-flower is a right as inalienable as free speech."

Aldo Leopold wrote these words in his essential book, *A Sand County Almanac*, first published in 1949. Leopold was a forester, ecologist, author, hunter, professor, and ardent conservationist. As one who combined his work and personal life in studying wild places and wild creatures Aldo Leopold is best known for his understanding of the interconnectedness of na-

ture.

If you have not read *A Sand County Almanac* – or have not read it recently – now is the time to pick it up again. Leopold's words inspire us to continue resisting the inroads made against the wild lands we love, the very air we breathe and the water we drink in the name of greed.

A Blast From the Past

Gail Fishman

When the Civilian Conservation Corps built the refuge in the late 1930s to early 1940s, sand for constructing

Lighthouse Road and some of the levees was taken from the Plum Orchard Sand Pit. Today, we know the site as Plum Orchard Pond. The dry summer afforded the opportunity to clean out the heavy cattails and other plants so that wildlife such as turtles, alligators, gallinules, and ducks can be seen again. The photo to the right was taken from the 1937 Narratives.

Plum Orchard Pond Trail has been closed during construction of

Nature's Classroom. Dallas Becket rebuilt and improved the board-

walks. They are wider with a raised curb allowing for better drainage and benches have been added. The trail will officially reopen during the grand opening of Nature's Classroom!



Sand Pit

Nature watchers are inevitably drawn to brightly colorful creatures that are active when we are, during daytime. It is like that for the Lepidoptera - the order of insects whose wings bear minute scales. During this season when we celebrate butterflies, particularly the Monarch, it is worth recognizing that at least 85% of Lepidopteran families are actually moths.

Unlike butterflies, most adult moths are active at night. During the day, moths are typically found with their wings held flat against some surface like a tree trunk. Instead of bright colors, which might attract bird predators, the body coloration of most moths consists of natural shades that blend well with the surfaces on which they rest. If they are discovered by a hungry bird, some moths expose false eye-spots on their hind wings, which can scare the bird away.

Daytime activity and bright colors help butterflies find mates, but moths can't depend on vision at night. Instead, moth females emit a species-specific chemical (sex pheromone) which males of their species can detect at very low concentrations using large, feather-like antennae; then the males just fly upwind to the source. In contrast, butterfly antennae are thin rods with swollen tips, and seem to have a simple tactile function.

Adult moths drink the nectar of flowers too, and in the process they are important pollinators. But in terms of their ecological significance to plants, moths are probably better known for the role of their caterpillar larvae as pests. Gypsy moths, tent caterpillars, hornworms, and clothes moths are just a few species that cause economic damage. But then it's a moth caterpillar which provides us with the delightful tactile experience of silk.

If you ever doubt how many moths are around, just visit a security light at night, or put a candle in your window. But don't get singed!

Luna Moth photo from
USFWS library.



Visitor Information

Visitor Center - The Refuge Visitor Center and office is located 3 miles south of U.S. Hwy 98 at Newport on County Rd 59. Visit the displays describing Refuge wildlife and habitats and the Refuge Association Nature Store.

Entrance Fees - Federal entrance fee passes apply (America the Beautiful, Senior, Access) or daily car passes can be purchased for \$5. Annual passes include the St. Marks NWR Specific Pass and the current Federal Duck Stamp.

Hours - The Refuge is open daylight hours all year and the Visitor Center is open from 8:00 am to 4:00 pm Monday to Friday; and 10:00 am till 5:00 pm weekends. Closed on most Federal holidays.

Lighthouse Drive - For casual observation, the 7-mile Lighthouse Road provides many excellent stopping points between the Visitor Center and the St. Marks Lighthouse on Apalachee Bay. Please observe the posted speed limit.

Restrooms - At the Refuge Visitor Center, Tower Pond/Mounds Trail and at Otter Lake in Panacea.

Picnic Facilities - Next to Tower Pond Trail and at Otter Lake in Panacea.

Hiking - Fall, winter and early spring are the best times. Foot- and bicycle-traffic are allowed on trails. Maps are available at the toll booth, Visitor Center and information kiosks.

Fishing - Freshwater and saltwater fishing are available in certain areas of the Refuge year round. Contact the Refuge for restrictions. Boat launching is permitted during daylight hours at the Lighthouse saltwater launching ramp.

Hunting - Hunting is permitted for resident game species in designated areas fall - spring. Contact the Refuge after May 1 for upcoming year's applications and permit information, or visit www.fws.gov/saintmarks

Focus on Nature: Most Common Questions Barney Parker

MOST ASKED QUESTIONS IN THE DIGITAL PHOTOGRAPHY CLASS

Once a month I teach a course in digital nature photography at the refuge for anyone who has an interest in nature photography and more competent use of their digital cameras. One particular morning in preparation for the class, I realized that one of the other rangers was using our power point projector and I had to go to Plan B in nine minutes time as people for the class came streaming in. After I got a grip on myself and got over my panic attack, I came up with an idea. Since I could not use my power point with all of the pictures of the animals and plants at the refuge, I decided to do nothing but answer questions that day. I said to the class, "I am not going to tell you anything today, but instead I am only going to answer your questions about photographing wildlife and plants at the refuge. I see that many of you have shiny new digital cameras with you. I will

answer questions about how your camera works and how to get the best results out of it in addition to questions about wildlife on the refuge."

What unfolded in the class was unexpectedly successful in that the students asked all the questions that the content of my power point was designed to teach. The questions they asked were right to the point of how the digital camera works and how to get good pictures at the refuge. Questions included, where can I find the animals and plants on the refuge and how do I get good photos that I can be proud of? More technical questions included, why pictures are fuzzy or out of focus and what could be done to correct them? How do I get proper exposure and what does the aperture button do and how does it affect my camera? What is ISO (The length of sensitivity to light.)? Why can I choose various shutter speeds and what affect do they have on my photos? Additionally, they wanted to know how to be in the right place at the right time to get interesting photos.

Many other questions were asked that day as students covered everything that I intended to teach and more. If you have these questions and

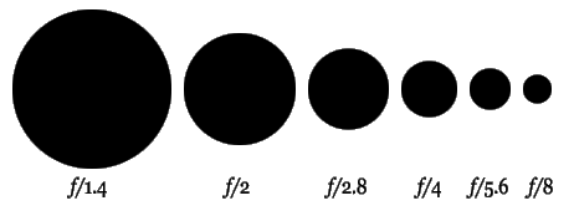


Photo of Cathedral of the Palms.

more, call the refuge at 850-925-6121 and reserve a place in the next photo class which will be held the first Saturday of every month at 9:00 a.m. in the NEW EDUCATION BUILDING "Nature's Classroom." The class is free. Following the class there will be a short excursion, weather permitting on the refuge to apply the things that have been taught and to answer more questions as you take your photos. Families are invited, including children. Bring a sack lunch and insect spray. If you enjoy the photo class, you will have the opportunity (no charge) to join the Refuge Photo Club to associate with folks having all levels of photo and camera expertise.



Grasshopper, caterpillars or scat?



The f-stop or Aperture affects the amount of light hitting the camera sensor.

If you will remember winter was mainly cold dry days. Those winter days dried the vegetation in the Florida Big Bend area. This spring and summer have been hot and dry, leaving no water for the plants to maintain a high level of moisture content. Therefore when lightning strikes the probability of a wildfire increases.

The North Florida Refuges Fire staff has been working hard and long hours this year. We began in April with sending our staff to assist with wildfires in Texas and Central Florida. Two of our staff members went twice with the Southern Area Incident Management Team (IMT) to Texas and then to the Honey Prairie Fire in Georgia. When the IMT gets called it is normal for large fires that will burn for days if not weeks. Five of our crew went at differing times with our D-6, (a large bulldozer), to Texas for initial attack on their wildfires. In May, Okefenokee National Wildlife Refuge got the lightning strike they were anticipating and many of the North Florida Refuges Fire staff went to assist on the Honey Prairie Fire, while still supporting Texas' never ending wildfires.

Finally on June 1st, St. Vincent National Wildlife Refuge was struck by lightning which ignited the C-4 Fire. The C-4 Fire was located west of the Cabin toward the center of the island.

The C-4 Fire's total acreage is 1,297 acres. It was the largest documented wildfire on St Vincent Island in the last 20 years.

As it would happen in a hot and dry time, lightning also struck on St. Marks National Wildlife Refuge, thus bringing to life the Grits Fire, a 399 acre fire. It was located between the Sopchoppy and Ochlockonee Rivers on the refuge. These two wildfires and all the other wildfires in the Southeast Region maxed out our capabilities to respond to new large fires.

So, the North Florida Refuges asked for assistance. We received assistance in the form of three type 6 Engines with 3-person crews. One came from Big Oaks National Wildlife Refuge in Indiana, another engine from the Bureau of Land Management (BLM) and the last came from the Ouachita National Forest in Arkansas (FS). The Big Oaks Engine worked on St. Marks and St. Vincent for 21 days and then returned home to take care of their refuge. The BLM engine worked on St. Vincent National Wildlife Refuge until the C-4 fire was controlled, and then moved to Lower Suwannee National Wildlife Refuge to assist with initial attack of wildfires until their time was up at 21-days. The FS engine worked at St. Vincent and St. Marks National Wildlife Refuges for two details. When the first crew timed out, another crew from Ouachita National Forest came to staff their engine for 14 days. When the 3rd crew for the FS engine showed up, they were transferred to the Honey Prairie Fire with one of

Hints for Enjoying Your Visit

Take Your Binoculars

Binoculars, spotting scopes and cameras will help you get a close-up view of wildlife without disturbing them. Look for wildlife up in the trees and the sky as well as in the roadside pools.

Bring Your Field Guides

Guide books will assist you in identifying the more common north Florida native flora and fauna.

Start early and stay late

Mammals and birds are more active during the early morning and late afternoon hours.

Observe carefully

Be aware of potential dangers, snakes, poison ivy, etc. Observe common-sense rules with bears and alligators, don't get too close. Remember feeding alligators as well as all wildlife is prohibited.

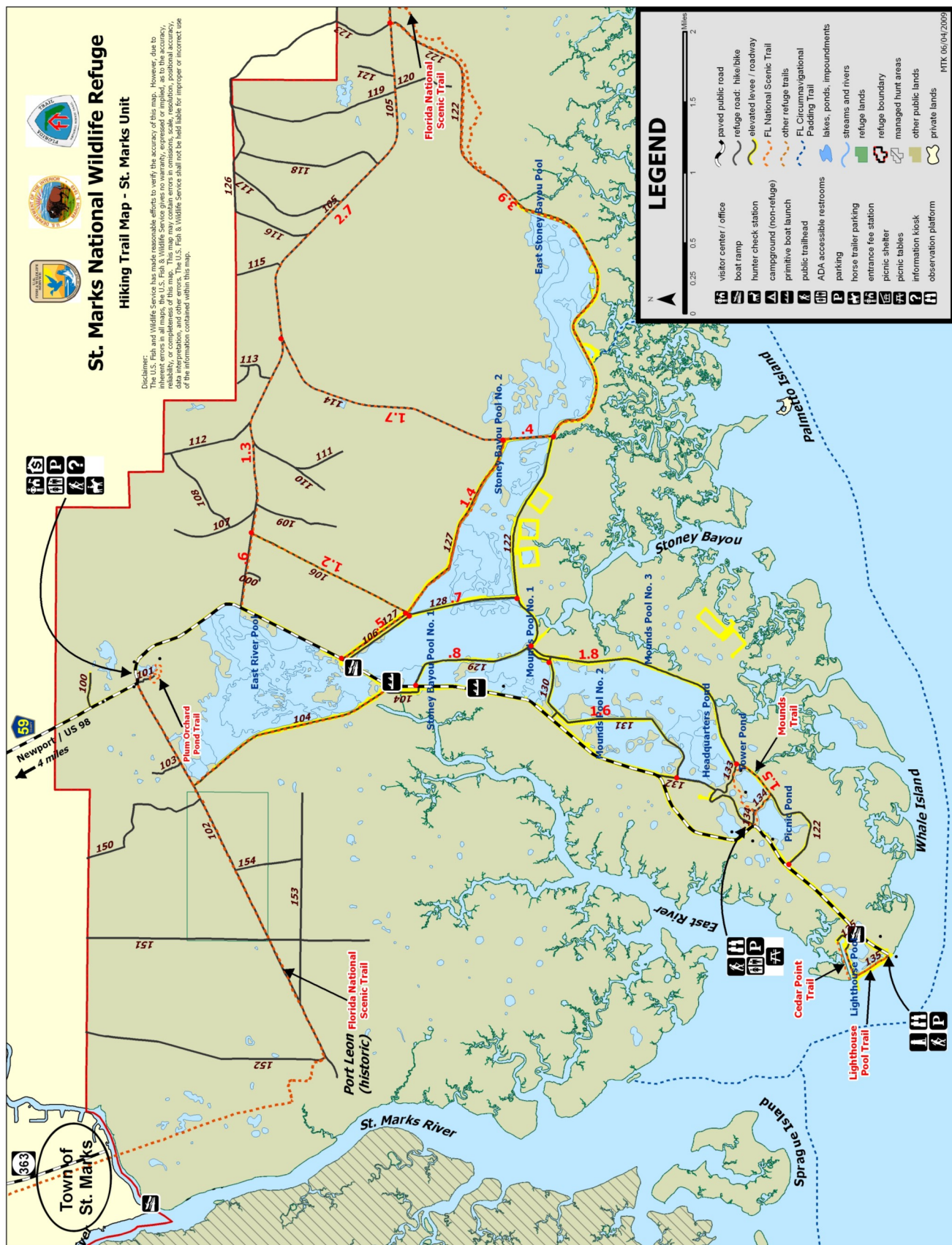
Dress appropriately

Bring insect repellent, sunscreen, proper hiking shoes and socks. Wear weather appropriate clothing.

Food

Other than chocolate bars, food is not for sale at the refuge, make sure to bring snacks or plan to visit nearby restaurants.

St. Marks Map with Trails



Calendar of Events – Fall 2011

Please call 850-925-6121 for Reservations & Updated Information

Thurs. Sept. 8 – Tots on Trails – ranger-led walk and short activity for 45 minutes, begins at the Visitor Center at 11 am. Reservations required.

Sat. Sept. 17 – Keep Wakulla Beautiful – Coastal Cleanup. Groups of 5 or more please call Ranger David Moody for clean up locations and supplies.

Sat. Sept. 17 - St. Marks NWR Photo Club meeting – 9 am. Contact President Tom Darragh at thomasd@talstar.com for more information.

Sat. Sept. 24 – Dedication and Grand Opening for Nature's Classroom, located at the Visitor Center site. 11 am – 5 pm. Fun for the entire family!
Special behind-the-scenes program for educators only 9 am – 11 am, must RSVP at

lori_nicholson@fws.gov.

Families in Nature – Take A Child Outside 11 am -5 pm. Public Lands Day, No Entrance Fee.

Sun. Sept. 25 – Continuation of Grand Opening of Nature's Classroom 10 am – 4 pm.

Sat. Oct. 1 - Photo Class- For all levels of digital photographers! Held in Nature's Classroom. Reservations required. Class size limited. Ranger Barney Parker, instructor. 9 am – noon.

Sun. Oct. 2 – Magnolia

Cemetery Tour - a historical tour of the cemetery of the ghost town of Magnolia. Meet at the Visitor Center at 4 pm. Call to register.

Sun. Oct. 2 – First Sunday at the Refuge series: “*Flames in the Refuge – why and how we burn!*” 2 pm in Nature's Classroom, St. Marks Fire crew will be keynote speakers.

Sat. Oct. 8 – Fri. Oct. 14 – National Wildlife Refuge Week – no entrance fees!

Sat. Oct. 8 - Fall Wildflower Walk with Dr. Loran Anderson. Meet at the Visitor Center at 10 am. Register to attend.

Sun. Oct. 9 – “The Big Sit” – Join the St. Marks Spotters in a national birding activity for all ages at the Lighthouse – 7 am – 6 pm. record birds that you see!

Thurs. Oct. 13 – Tots on Trails – ranger-led walk and short activity for 45 minutes, begins at Nature's Classroom at 11 am. Reservations required.

Sat. Oct. 15 - St. Marks NWR Photo Club meeting – 9 am in Nature's Classroom. Contact President Tom Darragh at thomasd@talstar.com for more information.

Sat. Oct. 22 – Annual Monarch Butterfly Festival – 10 am – 4 pm – All day event with butterfly tagging demonstrations, exhibits, speakers, walks, crafts, photo booth. Families in Nature –

“ Butterflies”.

Wakulla Fall Archery Hunt.
Nov 1-5 Tues - Saturday

Sat. Nov. 5 - Photo Class- For all levels of digital photographers! Held in Nature's Classroom. Reservations required. Class size limited. Ranger Barney Parker, instructor. 9 am – noon.

Sun. Nov. 6 – First Sunday at the Refuge series “*Springs and Sinks on the refuge,*” 2 pm, Harley Means, Florida state geologist, held in Nature's Classroom.

Panacea Fall Archery Hunt -
Nov. 8-12 Tues -Friday .

Thurs. Nov. 10 – Tots on Trails – ranger-led walk and short activity for 45 minutes, begins at the Nature's Classroom at 11 am. Reservations required

Fri. Nov. 11 – 13 – Fee Free to celebrate Veterans Day! Enjoy your refuge!

Sat. November 12- Fall Wildlife Tour- Tour with naturalist guide, Don Morrow to view the change of the seasons with birds, mammals, reptiles and plants. Please call to register for the 9 am or 1 pm tour. Bring binoculars, bug repellent, water and field guides if you have them.

Continued on pg. 13

There are several new items of interest in the Nature Store in the visitor center: Make sure to take the time to come check them out. A great gift for anyone who fishes out of St. Marks is our St. Marks Flats Slam t-shirts, with our own unique design: 4 colors; the white one comes in long and short sleeve (with pocket). This shirt makes a great gift for those that fish our flats.



We have some new books. Three that I think are especially interesting are described below:

Olivia's Birds by Olivia Boulter (for ages 9–12, 32 pages)



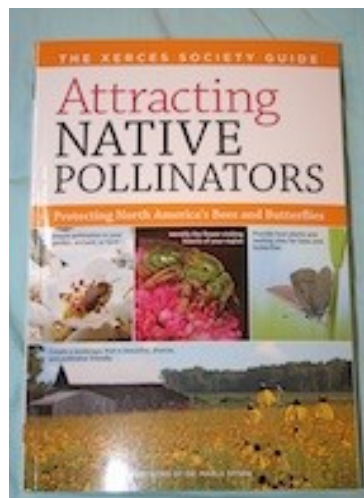
Upset about the oil spill and wanting to help, Olivia Boulter, 11 years old,

raised over \$150,000 that went to Audubon's Gulf Oil Spill recovery efforts. The book, written in Olivia's own words, with her own wonderful drawings, tells the story of how Olivia accomplished this. The book also includes information on easy ways that kids can get involved and make a difference.

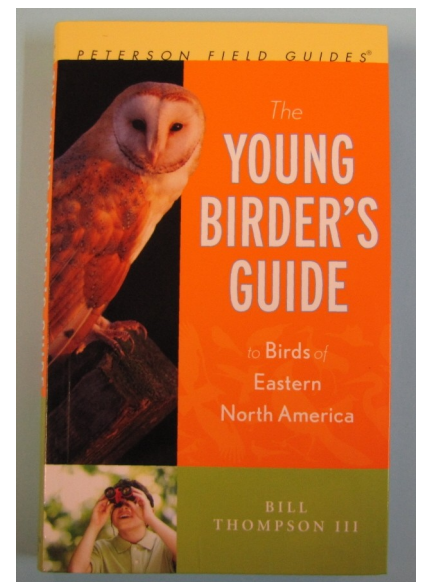
Attracting Native Pollinators by the Xerces Society

"Bees, wasps, butterflies, moths, flies and some beetles pollinate more than 70% of flowering plants..." (from the book jacket) In this book, the Xerces Society provides information on how to protect and encourage our native pollinators. Visit them at:

www.xerces.org



Another great book available is *The Young Birders Guide* by Bill Thompson III. Bill Thompson, III will be available at the Grand opening on Sept. 24 and 25. He will be autograph copies of his popular books *The Young*



Birder's Guide to Birds of Eastern North America, The Backyard Bird Watcher's Answer Guide, and Identify Yourself, The 50 Most Common Birding Identification Challenges, September 24 - 25. If you don't already own a copy, we'll have them for purchase in our Nature Store.

We also have 3 walking staff medallions: St. Marks NWR, Florida Trail and the state of Florida.

Also, look for our new lighthouse and whooping crane pins!



Phytoplankton Monitoring

David Moody

St. Marks National Wildlife Refuge Volunteers have been monitoring Phytoplankton in Apalachee Bay since January 2011. The Phytoplankton Monitoring Network (PMN) was established through NOAA as an outreach program for monitoring marine phytoplankton and harmful algal blooms (HABs). By linking the general public to laboratory scientists, the PMN helps to build a more informed public while providing useful data to scientists. Making this connection is highlighted in the seven PMN program goals:

- Monitor and maintain an extended survey area along coastal waters throughout the year;
- Create a comprehensive list of harmful algal species inhabiting coastal marine waters;
- Promote an increased awareness and education to the public on HABs;
- Identify general trends where HABs are more likely to

occur;

- Isolate areas prone to harmful algal blooms (HABs) for further study by Marine Biotoxins researchers in effort to assist state managers in mitigating the affects of HABs;
- Create a working relationship between volunteers and Marine Biotoxins researchers
- Increase the public's awareness of research work conducted by federal researchers on HABs.

Refuge Volunteer Carol Miller writes...

Phytoplankton are SO COOL! I won't admit to how many years it has been since I looked at a drop of water under the microscope, but I sure don't remember all these little guys. It is exciting to sit in front of the microscope with one or more other people and be able to find and identify the various shapes and species. There is such diversity in what we find in our samples each time we check. It's "Oh, wow! Look at this!" or

"Does this look like a Navicula to you?" Sometimes we find things that aren't on our reference page, and a query is sent off to our contact to find out what it is. Other times there are tiny animals that seem to fly around the slide, and sometimes eat what we're trying to identify. Always we find something that we want to show off to the others, and that's the most fun. Training is scheduled for Thursday



Sept. 15 from 9 am until noon.

Call Volunteer Coordinator David Moody to join (850) 925-6121. We are currently on an every other Friday schedule.

Finding Cash on the Refuge

Craig Kittendorf

Actually, we're talking about "cache" as in geocaching. Geocaching is a high-tech, family-friendly, outdoor adventure similar to a scavenger or treasure hunt, where a Global Positioning System (GPS) receiver is used to locate a hidden cache. Since taking or leaving things on the refuge is not allowed, a form of geocaching called virtual geocaching is planned. Instead of searching for a hidden cache, cachers will request a clue sheet which gives the coordinates to specific locations on the refuge which may have an interpretative sign or physical feature. Once the location is found, they must answer questions in the clue sheet about the site. After completing the questions, the answer sheets can be brought to the Visitor Center for a reward. It is hoped that families will complete the quest together and have fun while learning more about nature and the Refuge. Look for clue sheets on the St. Marks Refuge Association website: <http://stmarksrefuge.org>.

The St. Marks NWR red-cockaded woodpecker population continues to be most intensively monitored and managed endangered species on the refuge. The red-cockaded woodpecker (RCW) is an excellent management indicator species reflecting the health of the fire-dependent longleaf-grassland ecosystems to which it has evolved and specialized. It bears repeating that this once-common bird is only endangered because its habitat is endangered. Less than 3% of the original acreage of longleaf-grassland remains in the Southeastern U.S., and of that, only about 1.5% is managed under some semblance of natural historical conditions, including frequent prescribed fire.

The 2011 nesting season on the refuge was extremely successful because of a sharp increase in the number of nesting pairs or family groups of RCWs. This year, our population increased from 25 to 30 active groups, representing 72 adults. Of these groups, 25

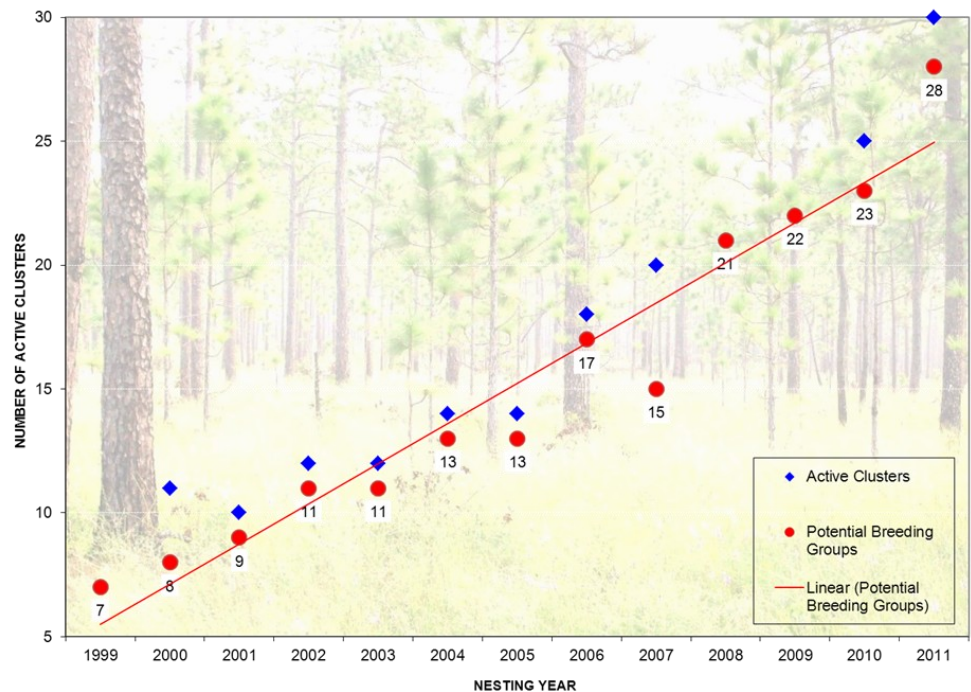
successfully nested, producing 23 male and 28 female fledglings (young birds that survived to fly out of the nest). Ninety-one percent of nestlings banded at 7-9 days old survived to become fledglings. Approximately 40% of all the nests were in natural cavities created by RCWs and 60% were in artificial cavities. Forty percent of all groups have one or more helpers – typically male offspring from previous years that assist in creating new cavities, defending the group's territory, and raising young.

The average age of breeding males in the population is 4.7 years, while the average age for breeding females in the population is 2.6 years; the oldest male and female currently residing in the population are each 10 years old.

Photos of male RCW taken by Chris O'Bryan



St. Marks NWR-Ochlockonee River S.P. Red-cockaded Woodpecker Population
1999-2011



The Education building is now completed. We have the grand opening scheduled for Sept. 24-25. Keep a look out for news releases as we get closer to the event.

Several people from the refuge attended the Refuge Vision Conference in July. If you want to see how the conference went, there is a good deal of information on line. Go to americaswildlife.org for further information.

John Cooper, our STEP student, and Richard Walker, our YCC student, returned to school in August. We have enjoyed having them here on the refuge. If you want an example of some of their work, take a look at the new boardwalks on Plum Or-

chard Pond Trail and the paint job on the picnic shelters at Otter Lake. Thanks for all the hard work in the heat this summer guys.

Student Cooperative Employment Program (SCEP) student Christina Legleu has returned to school. She and the two students assisting her surveyed 803 gopher tortoise burrows. We really were not expecting record setting temperatures when we designed the project. Those were a bonus. See Michael Keys story on page 15 in this newsletter for more information.

Come out and enjoy the fall at your national wildlife refuge!

REFUGE REGULATIONS

Please don't Litter Help keep your refuge clean!

Enclosed Cooking Fires are permitted in designated picnic areas only. Open fires are not permitted.

Pets must be on a leash and under control of owners at all times.

Collecting or taking of artifacts, natural features, animals or plants on government property is prohibited.

Fireworks are prohibited.

Lightning Strikes cont. from pg. 6

our fire crew. *Cont. on page 12...*

We could staff the FS engine at Honey Prairie with him since both the C-4 Fire and the Grits Fire was controlled. All in all, this wildfire season has been very busy across the South.



West Texas Fire



Honey Creek Fire

Cultural Resources: "That Rascally Picket" Andrew Edell

One of my favorite stories of this area comes directly from the official War Department Records of the Civil War.

U.S.S. Somerset
East pass, St George's Sound, July 16, 1863
Report of Lt. Commander Crossman.

"At 9 p.m. on the morning of the 12th, five boats from the *Somerset* and three from the *Stars and Stripes* shoved off and pulled for the mouth of the St. Marks River. The object of this expedition was to pass up the St. Marks to the Wakulla above the hospital, land, storm the battery and spike the guns, then embark, make a dash for Newport, capture the *Spray*, and return down river." (NOTE: *The old Marine hospital was located near the Confederate battery, named Fort Ward, at the junction of the Wakulla and St. Marks rivers. The Spray, a small steamship used by the Confederates, was based at Newport.*)

On entering the mouth of the St. Marks River our boats proceeded slowly and silently, threading our way among the oyster bars and numerous shoals of the channel. We numbered 130 men, all told. The picket fires could be seen dimly near the lighthouse and about the solid ground east of the river. One bright light showed itself at Port Leon about one and half miles from the battery at St. Marks, near which we must pass within less than 100 yards. Yet there was no moon and I hoped we might pass unobserved by keeping close to the west bank.

As we reached Port Leon the picket hailed us. I replied to his hail, that I had been fishing down the river and was going up to St. Marks to sell the fish. He hailed again and told me to come ashore. I went toward the fire with the intention of capturing the guard before they could give the alarm. Presently a firebrand was thrown in the air and the picket sent a bullet through the muscles of one of my men in the launch. The picket fired four or five shots at us. Seeing the signal fires blazing up brightly all about the east part of the river and knowing that the surprise was now over, I gave the orders to return the fire.

Two signal guns were fired at us from the battery at St. Marks and had I kept on I should have pulled through a mile of the river exposed to the raking fire of the enemy. Reluctantly I gave the order to retreat, forming the line in reverse. We captured a sailboat on the way and the two men in it jumped out and had to wade some 2 miles through swamps to reach dry land. (NOTE: *Evidently making two men walk two miles in the swamps was the high point of his mission!*) We reached the *Somerset* and *Stars and Stripes* at 5 a.m. on the 13th. Meade, the man with the wound, will soon be well again, as his wound was slight. I regret the failure of a long cherished scheme. Had that *rascally picket* not proved so vigilant and wakeful, the attempt would have been a complete success. "

Calendar of Events cont. from pg. 8

Sat. November 19 - "Open House for the Holidays" 10 am - 3 pm - sponsored by the St. Marks NWR Photo Club. Nature's Classroom - 1255 Lighthouse Rd. Family- friendly event with: holiday photographs (props will be provided or bring your own); yummy holiday treats and hot cider; family-friendly crafts; and outdoor

wagon rides!

Sat. November 26 - Families in Nature program - theme "The 'Bear' Bones." 11 am – 2 pm.

Wakulla Unit General Gun Hunt
Dec. 9-11; Friday - Sunday.

Panacea Unit General Gun Hunt
Dec. 16-18; Friday - Sunday.

Sat. Dec. 3 - Photo Class- For all levels of digital photographers! Held in Nature's Classroom. Reservations required. Class size limited. Ranger Barney Parker, instructor. 9 am – noon.

Sun. Dec. 4 - First Sunday at the Refuge series "2 pm at Nature's Classroom. *"Past Present and Future of the Refuge."*



Lou Kellenberger

Refuge annual Photo Contest starting October 1, 2011. Check the Association website www.stmarksrefuge.org for all the categories and rules.

The Photo Club is all excited and gearing up for new field trips and informative meetings in Nature's Classroom. We will still be meeting the third Saturday of every month at 9am.

On a different note we have been contacted by Playwright Thom Bennett, for the use of one of our Lighthouse Photos. During a vacation he visited the St. Marks Lighthouse and used it for the "model" of the lighthouse in his newest endeavor "Ravenscliffe". He also used our photographs, in

his words, "as inspiration while writing". We just feel that honored someone visiting could fall in love with our Lighthouse.

Watch your backgrounds; make sure they are not too busy. To help with this you can use for a shallow depth of field. (Low F stop; F/2.8) Use a fast shutter speed (an ISO of 400)

Use a zoom so you don't disturb the butterflies, be patient, find a good spot and stand still for a little while and let the butterflies come to you. Butterflies are cold-blooded so photograph early in the morning when the temperatures are lower and the butterflies move slower.

Now go out and take photos!!!!

Calling all photographers, beginners to experts, it's time to get outdoors and have some fun. If you are like me the photography took a back seat to those hot summer days. I'm looking forward to all fall has to offer on our refuge, all types of wild flowers and butterflies and migrating birds to name a few. Start taking lots of photos so you can submit your best to the

Open House for the Holidays

Teresa Darragh

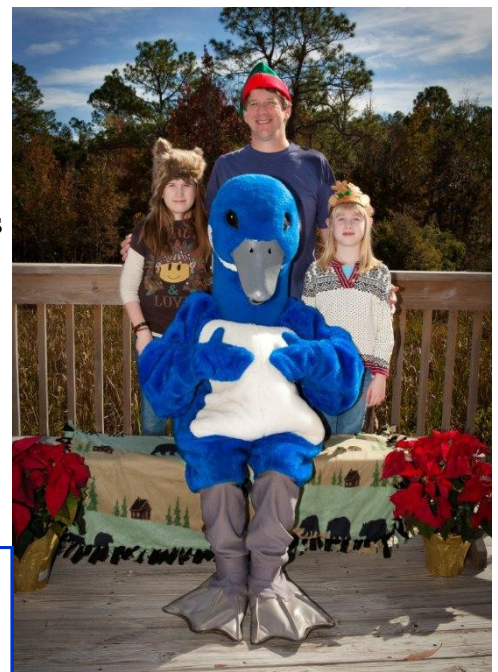
It's that time of the year for shopping. Why not make buying gifts fun! Come to the third annual "Open House for the Holiday." Come support the refuge Nature Store and get those perfect gifts. Buy something for everyone. We have wonderful shirts, hats, books, photo club cards, bookmarks and much more.

Bring the family to see the refuge mascot "Puddles" the Blue Goose. The Photo Club will be taking a free holiday photo (copies available for purchase). Also, don't forget the free cookies and cider. As al-

ways we will have kid's crafts, but this year we are adding refuge wagon tours. Come early and stay late. The Photo Club will have wonderful chili for a small donation. Why fight crowds in the malls, get outdoors for the holidays and have a little fun while getting your shopping done.

The event will take place at and around Nature's Classroom from 10 am until 3 pm.

Blue Goose and Friends at last year's Open House for the Holidays.



Gopher Tortoises; Teamwork and Technology Michael Keys

For two straight months this summer, a three-person team surveyed the refuge's gopher tortoise population to obtain an accurate population estimate within 5,500 acres of suitable habitat.

The crew leader was Christina Legleu, returning SCEP student, who had already logged hundreds of hours last year working on tortoise distribution as part of her master's thesis at Louisiana State University. The other members were selected from an applicant pool of over 130 individuals who were recruited by the University of Florida's Cooperative Fish and Wildlife Research Unit. These brave individuals were apparently intrigued by the following disclaimer which appeared in the job announcement, "The position will require extensive walking through difficult terrain in hot and buggy conditions. Inclement weather, poisonous plants, stinging insects and poisonous snakes are inherent dangers in this work environment. Joining Christina were Melissa Etheridge, returning for her junior year at the University of Maryland, and Chris O'Bryan who is entering the graduate program at Clemson University.

Together, the crew spent 1,200 hours walking pre-determined transect lines that were displayed on a handheld computer / GPS to give them real-time location information. Every gopher tortoise burrow encountered was logged into the GPS and scoped with one

of our two burrow cameras. These small cameras mounted at the end of a 30' section of hydraulic hose and are connected to a variety of monitors which display the interior view of the burrow.

The survey methodology used by our team was designed to estimate wildlife populations not by counting every individual, but by sampling a portion of the habitat and accurately measuring the distance observed animals were found from the center of the transect lines. That data is fed through a statistical program which ultimately calculates the most important factor – what was not seen on the survey. Think of it this way: when you walk through the woods, you hear or "detect"

birds singing. Do you hear every bird in the forest singing at once and could you count them all accurately? Of course not – you hear the songs of the birds closest to you most clearly and as you get farther away, your chances of detecting a particular song drop down to nearly zero.

So it is with the tortoise. We know we will find them in appropriate habitats, but what we really need to understand is how many we might

have missed so that we can make an accurate population estimate. While the data has been collected, it will still be some time before we have thoroughly analyzed the results.

What we do know so far, however, is that the tortoise survey crew worked very hard through the second-hottest June we've had on record and an especially warm, muggy July. In total, they covered over 77 miles of transects on about 5,500 acres of the refuge's highest and driest habitats. They logged over 800 tortoise burrow features on the GPS, including long-abandoned or collapsed burrows, and scoped over 500 potentially occupied burrows.



Chris O'Bryan on left; Melissa Etheridge in center in red shirt ;Christina Legleu in foreground sitting, Ken a DOF representative from Tate's Hell observes.

St. Marks National Wildlife Refuge
P.O. Box 68
St. Marks, FL 32355
(850) 925-6121
<http://www.fws.gov/saintmarks>
www.stmarksrefuge.org

Association Update

Gail Fishman

Sign up for membership

ST. MARKS REFUGE ASSOCIATION

PLEASE CHECK MEMBERSHIP



| | |
|----------------------|----------|
| ◇ Individual/Family | \$ 25.00 |
| ◇ Organization | \$ 50.00 |
| ◇ Senior (over 62) | \$ 20.00 |
| ◇ Supporting | \$ 50.00 |
| ◇ Student (under 16) | \$ 5.00 |
| ◇ Class | \$ 10.00 |
| ◇ Life | \$250.00 |

Name: _____

Address: _____

City, State, Zip _____

Phone (home): _____

Phone (office): _____

Email: _____

Gift membership Y / N: Or Memorial Y / N

In memory of: _____

Most streams appear to travel through a country with thoughts and plans for something beyond. But those of Florida . . . do not appear to be traveling at all, and seem to know nothing of the sea.” – John Muir *A Thousand Mile Walk to the Gulf*

John Muir had ample opportunity to observe Florida’s forests and rivers when he tramped across the state in 1867.

Tall pines and clear meandering creeks once graced the land that lies between St. Marks National Wildlife Refuge and U.S. Highway 98. In the early 1900s turpentine operators moved into the virgin pine forests of north Florida. The trees were tapped for raw gum which would be distilled into turpentine and other products. When gum production slowed, timber companies cut the worn out pines for lumber. Landowners scraped the ground clear and planted orderly rows of slash pine in the barren soil. Streams were erased; wildlife fled.

This landscape – once majestic and now degraded – has been purchased by conservation-minded buyers who are waiting to resell the property to St. Marks National Wildlife Refuge. Pines and grasses can be replanted. The ghost streams will fill and slowly flow to the sea they did in the past. Wildlife will come back. But first the refuge must purchase the property.

The sellers are willing but we cannot sit idly by and hope that they will hold it forever. The government has not allocated nearly enough money. Some of you have already contributed to our Land Acquisition Fund. As of now, the association is actively seeking donations – no amount is too small or too large – to reach our first year goal of \$500,000.

Fresh water is the lifeblood of St. Marks National Wildlife Refuge. Despite Muir’s words, the lazy streams that once glided through the forest and salt marshes carried nutrients to the rich estuarine nursery of Apalachee Bay. Their memory waits for us to *Return the Water to St. Marks*.